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Form PTO-1449					Document Numb 20050515.OR		Application Number 10/534,088			
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F.H.	4,	171,544	10/23/79		et al.					
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		OTHER DO	CUMENTS (In	cluding	g Author, Title	, Date,	Pertinent	Papers,	Etc.)	
Б Η.		Blow et al, PROTEIN SCIENCE, Control of Nucleation of Protein Crystals, Vol. 3, 1994, pp. 1638-1643								
\wedge		Chayen et al, J. APPL. CRYST. An Automated System for Micro-Batch Protein Crystallization and Screening, Vol. 23, 1990, pp. 297-302								
		Chayen et al, JOURNAL OF CRYSTAL GROWTH, Microbatch Crystallization Under Oil - A New Technique Allowing Many Small-volume Crystallization Trials, Vol. 122, 1992, pp. 176-180								
		Chayen et al, JOURNAL OF CRYSTAL GROWTH, Is Lysozyme Really the Ideal Model Protein?, Vol. 232, 2001, pp. 262-264								
		Chayen et al, PROTEIN SCIENCE, Control of Nucleation in the Crystallization of Lysozyme, Vol. 2, 1993, pp. 113-118								
	Coleman & Hench, CERAMICS INTERNATIONAL, A Gel-derived mesoporous Silica Reference Material for Surface Analysis by Gas Sorption, Vol. 26, 2000, pp. 171-178									
	Cook et al, KEY ENGINEERING MATERIALS, Pore Characterisation and Interconnectivity Studies on bioactive 58 S Sol-Gel Glass, Vols. 192-195, 2001, pp. 625-628									
D'Arcy et al, JOURNAL OF CRYSTAL GROWTH, A Novel Approach to Crystall Proteins Under Oil, Vol. 168, 1996, pp. 175-180								ising		
Dusastre, NATURE, Pore Characterization, Vol. 408, 2000, p. 417							17			
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EXAMINER DATE CONSIDERED SOSSO										

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 3 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

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	OTHER DOCUMENTS (Including			Author, Title, Date, Pertinent Papers, Etc.				Papers, Etc.)		
F.H.	Hench & West, LIFE CHEMISTRY REPORTS, Biological Applications of Bioactive Glasses, Vol. 13, 1996, pp. 187-241									
Λ		Hench, CURRENT OPINION IN SOLID STATE & MATERIALS SCIENCE, Sol-gel Materials for Bioceramic Applications, Vol. 2, 1997, pp. 604-610								
	Hench & Wes	Hench & West, CHEM. REV., The Sol-Gel Process, Vol. 90, 1990, pp. 33-72								
	http://prote	http://proteome.bnl.gov/progress.html, Progress toward structure solution by X-ray Crystallography, January 18, 2005, pp. 1-3								
		Lenza et al, JOURNAL OF MATERIALS SCIENCE: MATERIALS IN MEDICIN, Surface- modified 3D Scaffolds for Tissue Engineering, Vol. 13, 2002, pp. 837-842								
		Li et al, JOURNAL OF APPLIED BIOMATERIALS, An Investigation of Bioactive Glass Powders by Sol-Gel Processing, Vol. 2, 1991, pp. 231-239								
	Li et al, CHEMICAL PROCESSING OF ADVANCED MATERIALS, Effects of Structure and surface Area on bioactive Powders by Sol-Gel Process, Vol. 56, 1992, pp. 627-633 Malkin et al, JOURNAL OF CRYSTAL GROWTH, Crystallization of Stellite tobacco Mosaic Virus I. Nucleation Phenomena, Vol. 126, 1993, pp. 544-554									
	McPherson and Schlichta, Heterogeneous and Epitaxial Nucleation of Protein Crystals on Mineral Surfaces, Vol. 239, 1988, pp. 385-387 Orefice et al, JOURNAL OF BIOMEDICAL MATERIAL RESEARCH, Novel Sol-Gel Bioactive Fibers, Vol. 55, 2001, pp. 460-467									
Y										
БН	Pereira & Hench, JOURNAL OF SOL-GEL SCIENCE AND TECHNOLOGY, Mechanisms of Hydroxyapatite Formation on Porous Gel-Silica Substrates, Vol. 7, 1996, pp. 59-68									
EXAMINER TOURS DATE CONSIDERED 8/28/26										
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP > 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.										

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Sheet 3 of 4 Form PTO-1449 Document Number Application Number 20050515.ORI 10/019,520 INFORMATION DISCLOSURE CITATION IN AN APPLICATION Applicant Naomi Chayen et al (Use several sheets if necessary) Filing Date Group Art Unit May 6, 2005 11233 U.S. PATENT DOCUMENTS EXAMINER DOCUMENT NUMBER DATE NAME CLASS SUBCLASS FILING DATE INITIAL IF APPROPRIATE FOREIGN PATENT DOCUMENTS DOCUMENT DATE COUNTRY CLASS SUBCLASS Translation NUMBER ŸES | OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Papers, Etc.) Roether et al, BIOMATERIALS, Development and in vitro Characterisation of Novel Bioresorbable and Bioactive Composite Materials Based on Polylactide Foams and Bioglass for Tissue Engineering Applications, Vol. 23, 2002, pp. 3871-3878 Rosenberger et al, JOURNAL OF CRYSTAL GROWTH, Temperature Dependence of Protein Solubility - Determination and Application to Crystallization in Xray Capillaries, Vol. 129, 1993, pp. 1-12 Sanjoh et al, JOURNAL OF CRYSTAL GROWTH, Spatiotemporal Protein Crystal Growth Studies Using Microfluidic Silicon Devices, Vol. 196, 1999, pp. 691-Sanjoh et al. JOURNAL OF CRYSTAL GROWTH, Surface-potential Controlled Simicroarray Devices for Heterogeneous Protein Crystallization Screening, Vol. 232, 2001, pp. 618-628 Saravanapavan and Hench, JOURNAL OF BIOMEDICAL MATERIAL RESEARCH, Low-Temperature synthesis, Structure, and Bioactivity of Gel-Derived Glasses in the Binary CaO-Sio₂ System, Vol. 54, 2001, pp. 608-618 Sepulveda et al, JOURNAL OF BIOMEDICAL MATERIAL RESEARCH, Bioactive Sol-Gel Foams for Tissue Repair, Vol. 59, 2002, pp. 340-348 Sing et al, PURE AND APPL. CHEM., Reporting Physisorption Data for Gas/Solid Systems, Vol. 57, 1985, pp. 603-619 Stamboulis et al, ADVANCED ENGINEERING MATERIALS, Novel Biodegradable Polymer/Bioactive Glass Composites for Tissue Engineering Applications, Vol. 4, No. 3, 2002, pp. 105-109 Stura, PROTEIN CRYSTALLIZATION: TECHNIQUES, STRATEGIES AND TIPS, (ed. FH. Bergfors, T.M.) (International University Line, LaJolla; 1999) **EXAMINER** DATE CONSIDERED EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP > 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the

(2-92) Sheet 4 of 4

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	DOCUMENT DATE NUMBER			COUNTRY	CLASS	SUBCLASS	Translation YES NO				
		OTHER DO	CUMENTS (In	cluding	Author, Title	, Date,	Pertinent	Papers, Etc.)			
Fith		Visuri et al, BIO/TECHNOLOGY, A New Method for Protein Crystallization Using High Pressure, Vol. 8, 1990, pp. 547-549									
	<u></u>	Chayen et al, ACTA CRYST., Protein crystallization for Genomics: towards High-throughput Optimization Techniques, Vol. 58, 2002, pp. 921-927									
0		Chayen et al, JOURNAL OF MOLECULAR BIOLOGY, Porous Silicon: An Effective Nucleation-inducing Material for Protein Crystallization, Vol. 312, 2001, pp. 591-595									
		Sakamoto et al, NATURE, Direct Imaging of the Pores and Cages of Three- Dimensional Mesoporous Materials, Vol. 408, 2000, pp. 449-453									
		Saridakis et al, ACTA CRYST, Separating Nucleation and Growth in Protein Crystallization Using Dynamic Light Scattering, Vol. 58, 2002, pp. 1597-1600									
		Wiencek, ANNU. REV. BIOMED. ENG., New Strategies for Protein Crystal Growth, Vol. 1, 1999, pp. 505-534									
		Fabbri et al, BIOMATERIALS, Hydroxyapatite-based Porous Aggregates: Physico-Chemical Nature, Structure, Texture and Architecture, Vol. 16, 1995, pp. 225-228									
Drenth, J. (1994), PRINCIPLES OF PROTEIN X-RAY CRYSTALLOGRAPHY, Sprin Verlag, New York (Textbook, copy not provided)											
	\angle	Hench, L.L. (1998), SOL-GEL SILICAS, Hayes Publishing Co., New York (Textbook, copy not provided) Iler, R.K. (1979), THE CHEMISTRY OF SILICA, J Wiley & Sons, New York (Textbook, copy not provided)									
\bigvee											
Lowell S., Shields JE. (1984) POWDER SURFACE AREA AND POROSITY. Chapmed Hall (Textbook, copy not provided)								Y. Chapman and			
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